

Applicant: Robert S. Howland
Appl. No.: 10/698,087
Examiner: Eduardo C. Robert
Docket No.: 703716.4001

Amendments to the Claims

Claims 1 through 4 (cancelled).

5. (currently amended) The spinal fixation system of Claim 12 13 wherein each swing bolt comprises a threaded region opposite the respective first and second screws, and wherein a fastener is threadable onto the threaded region for securing the respective clamp assemblies on the swing bolts.

6. (currently amended) The spinal fixation system of Claim 12 13 wherein the spacer comprises a an elongated "C" shaped clip receivable around the elongate member, the clip comprising opposing edges that may be compressed around the elongate member to secure the clip to the elongate member.

7. (previously presented) The spinal fixation system of Claim 12 wherein the elongate member is at least partially curved, and the passageways in the first and second clamp assemblies are configured for receiving the elongate member.

Claims 8 through 11 (cancelled).

12. (currently amended) A spinal fixation system comprising a first anchor screw assembly having a first screw having a threaded portion configured to be screwed into a first vertebrae, the first screw assembly including a first cylindrical swing bolt pivoted onto the first screw, and the first screw assembly comprising a first clamp assembly comprising lower and upper clamps each having a cylindrical opening therethrough disposed on the first swing bolt of the first screw assembly, the lower clamp having a bottom spherical seat at the edge of the cylindrical opening theretherein, the first clamp assembly having a first passage therethrough, the lower and upper clamps openings defining a cylindrical passageway for defining a clamp for receiving a rod,

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a second anchor screw assembly comprising a second screw having a threaded portion configured to be screwed into a second vertebrae adjacent the first vertebrae, the second screw assembly including a second cylindrical swing bolt pivoted onto the second screw, and the second anchor screw assembly comprising a second clamp assembly comprising lower and upper clamps each having a cylindrical opening therethrough disposed on the second swing bolt of the second screw assembly, the lower clamp having a bottom spherical seat at the edge of the cylindrical opening therein, the second clamp assembly having a second passage therethrough, the lower and upper clamps openings defining a cylindrical passageway for defining a clamp for receiving a rod.

an elongate member receivable in the first and second passages, the elongate member comprising an exposed portion extending between the first and second screw assemblies, and

wherein each of the first and second screws comprises a head portion opposite the threaded portion comprising a spherical shoulder, the spherical shoulder being adapted to mate, pivot and rotate 360° with respect to the bottom spherical surfaees seats of the respective first and second clamp assemblies.

13. (currently amended) A spinal fixation system comprising

a first anchor screw assembly having a first screw having a threaded portion configured to be screwed into a first vertebrae, the first screw assembly including a first cylindrical swing bolt pivoted onto the first screw, and the first screw assembly comprising a first clamp assembly having a cylindrical opening therethrough disposed on the first swing bolt of the first screw assembly, the first clamp assembly having a first passage therethrough,

a second anchor screw assembly comprising a second screw having a threaded portion configured to be screwed into a second vertebrae adjacent the first vertebrae, the second screw assembly including a second cylindrical swing bolt pivoted onto the second screw, and the second anchor screw assembly comprising a

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second clamp assembly having a cylindrical opening therethrough disposed on the second swing bolt of the second screw assembly, the second clamp assembly having a second passage therethrough,

an elongate member receivable in the first and second passages, the elongate member comprising an exposed portion extending between the first and second screw assemblies, and

a spacer extending between and securable to the exposed portion of the elongate member between the first and second anchor screw assemblies, the spacer having a length substantially similar to a the same as the length of the exposed portion of the elongate member between the anchor screw assemblies for preventing the first and second anchor screw assemblies, and consequently the first and second vertebrae, from moving substantially toward one another.

14. (currently amended) A spinal fixation system comprising
 - a first anchor screw assembly including a first screw having a threaded portion configured to be screwed into a vertebrae,
 - a cylindrical swing bolt pivoted onto the first screw,
 - the anchor screw assembly further comprising a clamp assembly comprising upper and lower clamps having a cylindrical opening therethrough and disposed on the swing bolt, and the clamp assembly including a passageway therethrough for receiving an elongate member therein, a lower end of the clamp assembly having a bottom spherical shoulder seat at the edge of the cylindrical opening therein, and
 - wherein the first screw comprises a head portion opposite the threaded portion comprising a spherical shoulder, the spherical shoulder being adapted to mate, pivot and rotate 360° with respect to the bottom spherical shoulder seat of the clamp assembly.